

CLAIMS

1. A wireless terminal for use in the transmitting and receiving frequency bands of a frequency duplex system, comprising transmitting and receiving stages and signal propagating means coupled to the transmitting and receiving stages, wherein the signal propagating means comprises an antenna structure having sufficient bandwidth to cover the larger one of the transmitting and receiving frequency bands, a receiving filter and a transmitting filter coupled by respective feeds to the antenna structure.
2. A terminal as claimed in claim 1, characterised in that the antenna structure comprises a Planar Inverted-F Antenna (PIFA).
3. A terminal as claimed in claim 2, characterised in that the PIFA includes two differential slots.
4. A terminal as claimed in claim 3, characterised in that the two differential slots separate the PIFA into a central element and two outer elements, the central and outer elements being interconnected, in that a free end of the central element is connected to a ground plane and in that free ends of the two outer elements are connected respectively to the receiver and transmitter filters.
5. A terminal as claimed in claim 3 or 4, characterised in that the differential slots are of substantially the same size and shape.
6. A terminal as claimed in claim 3 or 4, characterised in that the differential slots are asymmetric.
7. A terminal as claimed in any one of claims 1 to 6, characterised in that the transmitter and receiver filters are Bulk Acoustic Wave (BAW) filters.

8. A module for use in a wireless terminal operable in the transmitting and receiving frequency bands of a frequency duplex system, comprising signal propagating means including an antenna structure having sufficient bandwidth to cover the larger one of the transmitting and receiving frequency bands, a receiving filter and a transmitting filter coupled by
5 frequency bands, a receiving filter and a transmitting filter coupled by respective feeds to the antenna structure and having terminals for connection to the RF stages the wireless terminal.

9. A module as claimed in claim 8, characterised in that the antenna
10 structure comprises a Planar Inverted-F Antenna (PIFA).

10. A module as claimed in claim 9, characterised in that the PIFA includes two differential slots.

11. A module as claimed in claim 10, characterised in that the two
15 differential slots separate the PIFA into a central element and two outer elements, the central and outer elements being interconnected, in that a free end of the central element is connected to a ground plane and in that free ends of the two outer elements are connected respectively to the receiver and
20 transmitter filters.

12. A module as claimed in any one of claims 8 to 11, characterised
in that the transmitter and receiver filters are Bulk Acoustic Wave (BAW) filters.
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